

549,944

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau(43) International Publication Date
18 November 2004 (18.11.2004)

PCT

(10) International Publication Number
WO 2004/099369 A2(51) International Patent Classification?: C12N
(21) International Application Number: PCT/US2004/013175
(22) International Filing Date: 28 April 2004 (28.04.2004)
(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data: 60/467,255 30 April 2003 (30.04.2003) US

(71) Applicant (for all designated States except US): GENENCOR INTERNATIONAL, INC. [US/US]; 925 Page Mill Road, Palo Alto, CA 94304 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): JONES, Brian, E. [GB/NL]; Gravin Juliana van Stolberglaan 24, NL-2263VA Leidschendam (NL). GRANT, William, D. [GB/GB];

15 The Tithings, Kibworth Beauchamp Leicestershire LE8 OPU (GB). HEAPHY, Shaun [GB/GB]; 426 Uppingham Road, Leicester Leicestershire LE52DP (GB). GRANT, Susan [GB/GB]; 15 The Tithings, Kibworth Beauchamp Leicestershire LE8 OPU (GB).

(74) Agent: BOYD, Victoria, L.; GENENCOR INTERNATIONAL, INC., 925 Page Mill Road, Palo Alto, CA 94304 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: NOVEL BACILLUS BAGCEL CELLULOSE

ORF Nucleotide sequence of cellulase gene

ATGGGTTTATA	CCAAAGCGAA	GTGTACGTTG	AAAAAACTG	TCTTGTTGG	50
TTTAATTCCTC	TGTTTAAAGT	TGTCAATGTT	TGTTCCAATG	ACATCAGCTG	100
AAGATGTCAC	TTGCTCACAG	TTGGATATTC	ACTCCTATGT	AGCTGACATG	150
CAGCCTGGCT	GGAATTTAGG	AAATACGTTT	GACGCTGTTG	GAGATGATGA	200
AACAGCGTGG	GGGAATCCTC	GTGTAACAAG	AGAGTTAATA	AAAACGATTG	250
CTGATGAAGG	GTATAAAAGC	ATTCGTATCC	CAGTGACATG	GCAAAATCAA	300
ATGGGTGGTT	CTCCAGATTA	TACGATAAAT	GAAGATTATA	TCAATCGGGT	350
GGAGCAAGCG	ATAGATTGGG	CGTTGGAGGA	AGACTTATAT	GTGATGTTAA	400
ATGTGCATCA	TGACTCATGG	CTGTGGATGT	ATGATATGGA	ACATAACTAT	450
GATGAGGTCA	TGGCAAGATA	TACAGCTATT	TGGGAACAAT	TGTCGGAAAA	500
ATTCAAAAGC	CACTCCCATTA	AGTTGATGTT	TGAGAGTGTC	AATGAGCCTA	550
GGTTTACGCA	GGAGTGGGGA	GAGATTCAGG	AAAATCATCA	TGCTTACTTA	600
GAAGATTTAA	ATAAGACGTT	CTATTATATT	GTCAAGAGAT	CAGGAGGCAA	650
TAATGTGGAG	CGCCCTTTAG	TATTGCCTAC	GATAAACA	GCCACGCTC	700
AGGATTTACT	AGATCGCTTG	TATCAAACAA	TGGAAAGACT	GGATGATCCT	750
TATTTAATTG	CCACGGTGCA	TTATTATGGC	TTCTGGCCAT	TTAGTGTCAA	800
TATAGCAGGG	TACACTCAT	TGAAACAGGA	AACACAACAA	GATATTATAG	850
ACACCTTTGA	CGGTGTTTAT	AACACATTTA	CAGCGCGTGG	TGTCCCAATT	900
GTATTAGGCG	AATTGGGTTT	GTAGGCTTTT	GACAAAAGTA	CGGATGTGAT	950
TCAGCAAGGG	GAGAAATTAA	AGTTTTTTGA	GTCTCTCATC	CATCATCTCA	1000
ATGAACGTGA	TATAACCCAT	ATOTTATGGG	ATAACGGCCA	GCATTTAAAT	1050
CGAGAAACTT	ATGCATGGTA	TGATCAAGAA	TTTCATGACA	TATTAAGAGC	1100
GAGTTGGGAG	GGGCGTTCTG	CTACAGCAGA	GTCTAATTG	ATTCATGTGA	1150
AGGACGGAAA	GCCAATTAGA	GATCAAGATA	TACAGCTTTA	CTTAAACGGA	1200
AATGAGCTAA	CAGCCTTACA	GGCAGGGGAG	GAATGCGTTG	TTCTAGGAGA	1250
GGATTATGAA	CTAGCAGGAG	GCGTATTAAC	GCTAAAAGCG	GACACCTTCA	1300
CAAGACTAAT	TACCCCTGGT	CAATTAGGAA	CCAATGCAGT	CATCACAGCA	1350
CAATTTAATT	CTGGAGCAGA	CTGGCGTTTT	CAATTACAGA	ATGTGGAGCT	1400
GCCAAACGGTC	GAAAATACAG	ATGGCTCAAC	ATGGCATTTT	CGGATCCCTA	1450
CCCATTTTAA	TGGTGATAGT	CTTGGGACGA	TGGAAAGCTG	TTATGCAAAC	1500
GGAGAAATATG	CTGGGCGCGA	AGATTGGACG	TCATTTAAAG	AAATTGGCGA	1550
GGCGTTTTCT	CCTAATTACG	CCACAGGGGA	AATTATTATA	TCAGAAAGCT	1600
TCTTTAAACGC	GGTACGGGAT	GATGATATCC	AATTAACATT	TCATTTTGGG	1650
AGCGGAGAGA	CGGTGAATA	TACCTTAAGT	AAAAATGGCA	ATTATGTTCA	1700
AGGTAGACGG	TAA				1713

(57) Abstract: The present invention provides a novel cellulase nucleic acid sequence, designated BagCel, and the corresponding BagCel amino acid sequence. The invention also provides expression vectors and host cells comprising a nucleic acid sequence encoding BagCel, recombinant BagCel proteins and methods for producing the same.

WO 2004/099369 A2